10/750868

Refine Search

Your wildcard search against 10000 terms has yielded the results below.

Your result set for the last L# is incomplete.

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

Search Results -

Terms	Documents
L28 and (portab$ or hand$ or light$) and reason$ and (information$ with fusion$)	1

Database: US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L29

Refine Search | Recall Text | Clear | Interrupt

Search History

DATE: Monday, May 22, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L29	L28 and (portab$ or hand$ or light$) and reason$ and	1	L29

	(information$ with fusion$)		
L28	6434512.pn.	1	L28
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L27	L25 and (portab$ or hand$ or light$) and reason$ and (information$ with fusion$)	1	L27
L26	L25 and portab$ and reason$ and (information$ with fusion$) and (realtime or "real-time" or (real$ adj time))	0	L26
L25	l21 or l22 or l23 or l24	145	L25
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L24	(6301514 | 6128560 | 5592386 | 4961575 | 4644351 | 5925817 | 5331431 | 5445347 | 5543802 | 5535428 | 5481255 | 5924695 | 5236200 | 5751245 | 4951039 | 6297742 | 6434481 | 5173688 | 5142279 | 5754965 | 5942969 | 6024655 | 5337013 | 5400018 | 5481906 | 5446678 | 6023241 | 5495344 | 5638383 | 6157894 | 5452356 | 5491785 | 6003808 | 5933100 | 5517419 | 6084542 | 4415065 | 6230089 | 6208948 | 5679075 | 5613212 | 5239468 | 5929609 | 6381537 | 6415224 | 5508695 | 5566091 | 5045850 | 4496149 | 5661666 | 5184312 | 5648898 | 6144903 | 5646629 | 6006146 | 6385536 | 5060156)![PN]	57	L24
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L23	('JP2001259105A'| '6320495'| 'JP02004176887A'| '6434512'| '5942969'| 'JP02001259105A'| '6219597'| 'JP2004176887A'| '6515621'| '6278938') [ABPN1,NRPN,PN,TBAN,WKU]	16	L23
L22	('JP2001259105A'| '6320495'| 'JP02004176887A'| '6434512'| '5942969'| 'JP02001259105A'| '6219597'| 'JP2004176887A'| '6515621'| '6278938')[URPN]	74	L22
L21	L1 or l5 or l6 or l17 or l18	10	L21
L20	6219597.pn. or 6434512.pn.	4	L20
	DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=OR		

L19	2004176887	0	L19
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L18	2004176887	2	L18
	DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=OR		
L17	20030377881	0	L17
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L16	L10 and L14	0	L16
L15	L14 not L10	6	L15
L14	L13 and (flight$ and (vehicle or air$))	6	L14
L13	L12 and (diagnos$ with fault$)	13	L13
L12	portab$ and reason$ and (information$ with fusion$) and (realtime or "real-time" or (real$ adj time)) and @ad<=20040105	89	L12
L11	L10 and (flight$ and (vehicle or air$))	0	L11
L10	L9 and (diagnos$ with fault$)	6	L10
L9	portab$ and reason$ and (information$ with fusion$) and (realtime or "real-time" or (real$ adj time)) and @pd<=20040105	55	L9
L8	portab$ and (("on-board" or onboard) with reason$) and (information$ with fusion$) and @pd<=20040105	0	L8
L7	portab$ and (("on-board" or onboard) with reason$) and (information$ with fusion$) and @ad<=20040105	1	L7
L6	2001259105	2	L6
	DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L5	5942969.pn. or 6278938.pn. or 6515621.pn. or 6320495.pn.	4	L5
L4	L1 and (portab$ or hand$ or light$)	2	L4
L3	L1 (portab$ or hand$ or light$)	2415005	L3
	DB=PGPB,USPT; THES=ASSIGNEE; PLUR=YES; OP=OR		
L2	L1 and ("real-time" or (real adj time) or realtime)	2	L2
L1	6219597.pn. or 6434512.pn.	2	L1

Refine Search

Search Results -

Terms	Documents
2004176887	0

Database:
US Pre-Grant Publication Full-Text Database
US Patents Full-Text Database
US OCR Full-Text Database
EPO Abstracts Database
JPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search: L15

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Monday, May 22, 2006 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=OR		
L15	2004176887	0	L15
	DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR		
L14	2004176887	2	L14
	DB=PGPB; THES=ASSIGNEE; PLUR=YES; OP=OR		
L13	20030377881	0	L13

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=OR

L12	l6 and l10	0	L12
L11	L10 not l6	6	L11
L10	L9 and (flight$ and (vehicle or air$))	6	L10
L9	L8 and (diagnos$ with fault$)	13	L9
L8	portab$ and reason$ and (information$ with fusion$) and (realtime or "real-time" or (real$ adj time)) and @ad<=20040105	89	L8
L7	L6 and (flight$ and (vehicle or air$))	0	L7
L6	L5 and (diagnos$ with fault$)	6	L6
L5	portab$ and reason$ and (information$ with fusion$) and (realtime or "real-time" or (real$ adj time)) and @pd<=20040105	55	L5
L4	portab$ and (("on-board" or onboard) with reason$) and (information$ with fusion$) and @pd<=20040105	0	L4
L3	portab$ and (("on-board" or onboard) with reason$) and (information$ with fusion$) and @ad<=20040105	1	L3
L2	2001259105	2	L2

DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

L1	5942969.pn. or 6278938.pn. or 6515621.pn. or 6320495.pn.	4	L1

END OF SEARCH HISTORY

10/750868

Hit List

First Hit

Your wildcard search against 10000 terms has yielded the results below.

Your result set for the last L# is incomplete.

The probable cause is use of unlimited truncation. Revise your search strategy to use limited truncation.

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Search Results - Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: US 20050149238 A1

Using default format because multiple data bases are involved.

L10: Entry 1 of 6 File: PGPB Jul 7, 2005

PGPUB-DOCUMENT-NUMBER: 20050149238
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050149238 A1

TITLE: System and method for monitoring and reporting aircraft quick access recorder data

PUBLICATION-DATE: July 7, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Stefani, Rolf	West River	MD	US
Scherbina, Alexander	Annapolis	MD	US

US-CL-CURRENT: 701/33; 701/29, 701/35

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 2. Document ID: US 7020701 B1

L10: Entry 2 of 6 File: USPT Mar 28, 2006

US-PAT-NO: 7020701
DOCUMENT-IDENTIFIER: US 7020701 B1

TITLE: Method for collecting and processing data using internetworked wireless integrated network sensors (WINS)

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 3. Document ID: US 6859831 B1

L10: Entry 3 of 6 File: USPT Feb 22, 2005

US-PAT-NO: 6859831
DOCUMENT-IDENTIFIER: US 6859831 B1

TITLE: Method and apparatus for internetworked wireless integrated network sensor (WINS) nodes

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 4. Document ID: US 6832251 B1

L10: Entry 4 of 6 File: USPT Dec 14, 2004

US-PAT-NO: 6832251
DOCUMENT-IDENTIFIER: US 6832251 B1

TITLE: Method and apparatus for distributed signal processing among internetworked wireless integrated network sensors (WINS)

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 5. Document ID: US 6826607 B1

L10: Entry 5 of 6 File: USPT Nov 30, 2004

US-PAT-NO: 6826607
DOCUMENT-IDENTIFIER: US 6826607 B1

TITLE: Apparatus for internetworked hybrid wireless integrated network sensors (WINS)

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 6. Document ID: US 6735630 B1

L10: Entry 6 of 6 File: USPT May 11, 2004

US-PAT-NO: 6735630
DOCUMENT-IDENTIFIER: US 6735630 B1

TITLE: Method for collecting data using compact internetworked wireless integrated network sensors (WINS)

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
L9 and (flight$ and (vehicle or air$))	6

Display Format: - Change Format

Previous Page Next Page Go to Doc#

L10: Entry 2 of 6 File: USPT Mar 28, 2006

US-PAT-NO: 7020701
DOCUMENT-IDENTIFIER: US 7020701 B1

TITLE: Method for collecting and processing data using internetworked wireless integrated network sensors (WINS)

DATE-ISSUED: March 28, 2006

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Gelvin; David C.	Escondido	CA		US
Girod; Lewis D.	Los Angeles	CA		US
Kaiser; William J.	Los Angeles	CA		US
Merrill; William M.	Los Angeles	CA		US
Newberg; Fredric	San Diego	CA		US
Pottie; Gregory J.	Los Angeles	CA		US
Sipos; Anton I.	Los Angeles	CA		US
Vardhan; Sandeep	Walnut	CA		US

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Sensoria Corporation	San Diego	CA		US	02

APPL-NO: 09/684565 [PALM]
DATE FILED: October 4, 2000

RELATED-US-APPL-DATA:
us-provisional-application US 60158013 00 19991006
us-provisional-application US 60170865 00 19991215
us-provisional-application US 60208397 00 20000530
us-provisional-application US 60210296 00 20000608

INT-CL-ISSUED:

TYPE	IPC	DATE	IPC-OLD
IPCP	G06F15/173	20060101	G06F015/173
IPCS	G06F9/44	20060101	G06F009/44
IPCS	H04L12/28	20060101	H04L012/28
IPCS	H01L25/00	20060101	H01L025/00

INT-CL-CURRENT:

TYPE	IPC	DATE
CIPP	G06 F 15/173	20060101
CIPS	G06 F 9/44	20060101

CIPS H01 L 25/00 20060101
CIPS H04 L 12/28 20060101

US-CL-ISSUED: 709/224; 370/390, 250/332, 717/100
US-CL-CURRENT: 709/224; 250/332, 370/390, 717/100

FIELD-OF-CLASSIFICATION-SEARCH: 709/201, 709/218, 709/224, 713/201, 719/313, 370/230, 370/390, 370/351, 370/228, 340/539.12, 340/539.19, 380/229, 707/4, 250/332, 717/100
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL | Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4406016	September 1983	Abrams et al.	455/19
☐	4520674	June 1985	Canada et al.	73/660
☐	4649524	March 1987	Vance	367/13
☐	4812820	March 1989	Chatwin	340/518
☐	4855713	August 1989	Brunius	340/506
☐	4951029	August 1990	Severson	340/506
☐	5241542	August 1993	Natarajan et al.	370/95.3
☐	5247564	September 1993	Zicker	379/40
☐	5295154	March 1994	Meier et al.	375/1
☐	5428636	June 1995	Meier	375/202
☐	5475687	December 1995	Markkula, Jr. et al.	370/85.1
☐	5534697	July 1996	Creekmore et al.	250/332
☐	5553076	September 1996	Behtash et al.	370/95.3
☐	5563948	October 1996	Diehl et al.	380/229
☐	5659195	August 1997	Kaiser et al.	257/415
☐	5726911	March 1998	Canada et al.	364/550
☐	5732074	March 1998	Spaur et al.	370/313
☐	5737529	April 1998	Dolin, Jr. et al.	
☐	5745759	April 1998	Hayden et al.	
☐	5760530	June 1998	Kolesar	
☐	5794164	August 1998	Beckert et al.	
☐	5852351	December 1998	Canada et al.	318/490
☐	5854994	December 1998	Canada et al.	702/56

☐	5907491	May 1999	Canada et al.	364/468.15
☐	5937163	August 1999	Lee et al.	709/218
☐	5959529	September 1999	Kail, IV	340/539.12
☐	5978578	November 1999	Azarya et al.	717/100
☐	6009363	December 1999	Beckert et al.	
☐	6028537	February 2000	Suman et al.	
☐	6028857	February 2000	Poor	370/351
☐	6078269	June 2000	Markwell et al.	340/825.5
☐	6144905	November 2000	Gannon	
☐	6145082	November 2000	Gannon et al.	
☐	6175789	January 2001	Beckert et al.	
☐	6181994	January 2001	Colson et al.	
☐	6185491	February 2001	Gray et al.	
☐	6202008	March 2001	Beckert et al.	
☐	6208247	March 2001	Agre et al.	340/539.19
☐	6246935	June 2001	Buckley	
☐	6389483	May 2002	Larsson	719/313
☐	6414955	July 2002	Clare et al.	370/390
☐	6477143	November 2002	Ginossar	370/230
☐	6499027	December 2002	Weinberger	707/4
☐	6504631	January 2003	Barry et al.	398/83
☐	6550012	April 2003	Villa et al.	713/201
☐	6661773	December 2003	Pelissier et al.	370/228
☐	6735630	May 2004	Gelvin et al.	709/224
☐	6859831	February 2005	Gelvin et al.	709/224
☐	9917477	April 1999		
☐	0054237	September 2000		

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	CLASS
2245963	February 2000	CA	
19743137	April 1999	DE	
0814393	December 1997	EP	

OTHER PUBLICATIONS

Ann Bhatnagar, et al., "Layer Net: A New Self-Organizing Network Protocol"; 1990 IEEE Military Communications Conference, Monterey, CA., Sep. 30 thru Oct. 3; pp. 845-849. cited by other
Norman Abramson, "The Throughput of Packet Broadcasting Channels", IEEE

Transactions on Communications, vol. Com-25, No. 1, Jan. 1977, pp. 117-128. cited by other
C. David Young, "USAP: A Unifying Dynamic Distributed Multichannel TDMA Slot Assignment Protocol", Milcom 96 Conference Proceedings, Oct. 22-24, 1996, pp. 235-239. cited by other
G. Asada, et al."Low Power Wireless Communication and Signal Processing Circuits for Distributed Microsensors", Proceedings of 1997 IEEE International Symposium on Circuits and Systems; Jun. 9-12, 1997, Hong Kong, pp. 2817-2820. cited by other
K. Bult, et al."Low Power Systems for Wireless Microsensors", 1996 International Symposium on Low Power Electronics and Design; pp. 17-21. cited by other
Anthony Ephremides, et al."A Design Concept for Reliable Mobile Radio Networks with Frequency Hopping Signaling"; Proceedings of the IEEE, vol. 75, No. 1, Jan. 1987; pp. 56-73. cited by other
K. Bult, et al., "Wireless Integrated Microsensors"; Solid-State Sensor and Actuator Workshop, Hilton Head South Carolina, Jun. 3-6, 1996, pp. 205-210. cited by other
C. David Young, "A Unifying Dynamic Distributed Multichannel TDMA Slot Assignment Protocol", Rockwell International Working Paper, Oct. 25, 1995, pp. 1-29. cited by other
Tsung-Hsien Lin, et al, "Wireless Integrated Network Sensors (WINS) for Tactical Information Systems", Rockwell Science Center, Thousand Oaks, Jan. 1998, pp. 1-6. cited by other
Michael J. Dong, et al."Low Power Signal Processing Architectures for Network Microsensors"; University of California, Los Angeles, ISLPED 97, International Symposium on Low Power Electronics and Design, Jan. 1998, pp. 1-5. cited by other
K. Sohrabi, J. Gao, V. Ailawadhi, G. Pottie, "A Self-Organizing Wireless Sensor Network," Proc. 37.sup.th Allerton Conf. On Comm., Control, and Computing, Monticello, IL, Sep. 1999. cited by other
D.J. Baker and A. Ephremides, "The Architectural Organization of a Mobile Radio Network via a Distributed Algorithm," IEEE Transactions on Communications, vol. Com-29, No. 11, Nov. 1981, pp. 1694-1701. cited by other
J. Elson, L. Girod, and D. Estrin, "Fine-Grained Network Time Synchronization Using Reference Broadcasts," submitted to SIGCOMM 2002. cited by other
W. Merrill, K. Sohrabi, L. Girod, J. Elson, F. Newberg, and W. Kaiser, "Open Standard Development Platforms for Distributed Sensor Networks," Aerosense Conference, Orlando, FL, Apr. 2002. cited by other
M. Gerla and J. Tzu-Chieh Tsai, "Multicluster, Mobile, Multimedia Radio Network," ACM-Baltzer Journal of Wireless Networks, vol. 1, No. 3, pp. 255-265, 1995. cited by other
C. R. Lin and M. Gerla, "Adaptive Clustering for Mobile Wireless Networks.". cited by other
S. Natkunanathan, et al., "A Signal Search Engine for Wireless Integrated Network Sensors", ASFL Annual Symposium, Mar. 2000, pp. 1-4. cited by oth- er
Michael J. Dong, et al., "Low Power Signal Processing Architectures for Network Microsensors", 1997 International Symposium on Low Power Electronics and Design; Digest of Technical Papers (1997) pp. 173-177. cited by other
Tsung-Hsien Lin, et al., "CMOS Front End Components for Micropower RF Wireless Systems", Proceedings of the 1998 International Symposium on Low Power Electronics & Design, pp. 11-15, Aug. 1998. cited by other
G. Asada, et al.., "Wireless Integrated Network Sensors: Low Power Systems on a Chip", Proceedings of the 1998 European Solid State Circuits Conference (ESSCIRC), pp. 1-8 The Hague, The Netherlands, Sep. 22-24, 1998. cited by other
Gregory J. Pottie, R&D Quarterly and Annual Status Report for AWAIRS, pp. 1-28; Jan. 1, 1999-Apr. 31, 1999. cited by other
Gregory J. Pottie, et al., Wireless Integrated Network Sensors: Towards Low Cost and Robust Self-Organizing Security Networks, SPIE Conference on Sensors, C3I, Information and Training Tech. for Law Enforcement, Boston, MA.; pp. 1-10; Nov. 3-5, 1998. cited by other
Loren P. Clare, et al., "Self-Organizing Distributed Sensor Networks", SPIE 13.sup.th. Annual Symposium on Aerosense/Defense Sensing, Simulation and Controls,

UGS Technologies and Applications Conference, Orlando, Florida; pp. 1-9; Apr. 5-9, 1999. cited by other
J. Agre, et al., "Autoconfigurable Distributed Control Systems", Proceedings of the 2.sup.nd. International Symposium on Autonomous Decentralized Systems (ISADS 95), Phoenix, Arizona; pp. 1-8; Apr. 25-27, 1995. cited by other
Jonathan R. Agre, et al., "Development Platform for Self-Organizing Wireless Sensor Networks", SPIE 13.sup.th. Annual Symposium on Aerosense/Defense Sensing, Simulation and Controls, Unattended Ground Sensor Technologies adn Applications Conference, Orlando, Florida; pp. 1-12; Apr. 5-9, 1999. cited by other
Asada, G., et al., "Wireless Integrated Network Sensors (WINS)" Proceedings of the SPIE, SPIE, Bellingham, VA 3673:11-18 (1999). cited by other
Lohle, H., et al., "Bordermaster 2000- An Advanced Border Surveillance System", Electrical Communication, Alcatel. Brussels, BE 153-158 (1994). cited by other

ART-UNIT: 2154

PRIMARY-EXAMINER: Follansbee; John

ASSISTANT-EXAMINER: Lee; Philip

ATTY-AGENT-FIRM: Courtney Staniford & Gregory LLP

ABSTRACT:

The Wireless Integrated Network Sensor Next Generation (WINS NG) nodes provide distributed network and Internet access to sensors, controls, and processors that are deeply embedded in equipment, facilities, and the environment. The WINS NG network is a new monitoring and control capability for applications in transportation, manufacturing, health care, environmental monitoring, and safety and security. The WINS NG nodes combine microsensor technology, low power distributed signal processing, low power computation, and low power, low cost wireless and/or wired networking capability in a compact system. The WINS NG networks provide sensing, local control, remote reconfigurability, and embedded intelligent systems in structures, materials, and environments.

62 Claims, 53 Drawing figures

Previous Doc Next Doc Go to Doc#

L6: Entry 5 of 6 File: USPT Oct 15, 1996

US-PAT-NO: 5566092
DOCUMENT-IDENTIFIER: US 5566092 A

TITLE: Machine fault diagnostics system and method

DATE-ISSUED: October 15, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Wang; Hsu-Pin	Tallahassee	FL		
Huang; Hsin-Hao	Kaohsiung			TW
Knapp; Gerald M.	Baton Rouge	LA		
Lin; Chang-Ching	Tallahassee	FL		
Lin; Shui-Shun	Tallahassee	FL		
Spoerre; Julie K.	Tallahassee	FL		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Caterpillar Inc.	Peoria	IL			02

APPL-NO: 08/176482 [PALM]
DATE FILED: December 30, 1993

PARENT-CASE:
CROSS-REFERENCE TO CO-PENDING APPLICATIONS The following applications are assigned to the assignee of the present application: U.S. Patent Application entitled "Supervised Training of a Neural Network," Ser. No. 08/176,458, naming as inventors Hsin-Hoa Huang, Shui-Shun Lin, Gerald M. Knapp, and Hsu-Pin Wang, filed concurrently herewith, pending the disclosure of which is hereby incorporated by reference in its entirety. U.S. Patent Application entitled "Machine Performance Monitoring and Fault Classification Using an Exponential Weighted Moving Average Scheme," Ser. No. 08/176,456, naming as inventors Julie M. Spoerre, Chang-Ching Lin, and Hsu-Pin Wang, filed concurrently herewith, pending the disclosure of which is hereby incorporated by reference in its entirety.

INT-CL-ISSUED: [06] G01 B 7/00

US-CL-ISSUED: 364/551.02; 364/131, 364/474.01, 364/474.11, 364/474.16, 395/904, 395/912
US-CL-CURRENT: 702/185; 700/159, 700/169, 700/174, 700/2, 706/904, 706/912

FIELD-OF-CLASSIFICATION-SEARCH: 364/131, 364/164, 364/474.01, 364/474.11, 364/474.15-474.17, 364/505, 364/506, 364/550, 364/551.01, 364/551.02, 364/579, 364/578, 395/3, 395/11, 395/21, 395/22, 395/50, 395/66, 395/75, 395/77, 395/82-84, 395/88, 395/93, 395/97, 395/900, 395/903, 395/904, 395/906, 395/907, 395/909, 395/911, 395/912, 395/914

See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL | Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4803736	February 1989	Grossberg et al.	
☐	4839823	June 1989	Matsumoto	395/907
☐	4901218	February 1990	Cornwell	364/131
☐	4914708	April 1990	Carpenter et al.	
☐	5040214	August 1991	Grossberg et al.	
☐	5121467	June 1992	Skeirik	395/22
☐	5130936	July 1992	Sheppard et al.	395/22
☐	5133021	July 1992	Carpenter et al.	
☐	5142590	August 1992	Carpenter et al.	
☐	5157738	October 1992	Carpenter et al.	
☐	5214715	May 1993	Carpenter et al.	
☐	5249257	September 1993	Akahori et al.	395/3
☐	5303331	April 1994	Namba	395/906
☐	5329465	July 1994	Arcella et al.	395/915
☐	5357449	October 1994	Oh	364/551.01
☐	5402519	March 1995	Inoue et al.	395/22
☐	5402520	March 1995	Schnitta	395/21
☐	5414645	May 1995	Hirano	364/551.01

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	CLASS
0244483B1	July 1992	EP	
WO9213306	August 1992	WO	

OTHER PUBLICATIONS

Huang et al., Tandem Artmap Neural Networks for Feedback Process Control: A Welding Example, Nov. 8-13, 1992, PED-vol. 57, Neural Networks in Manufacturing and Robotics, ASME, pp. 11-22.
Ibrahim et al., A Modified Flow Enforcement Technique for Preventive Congestion Control in ATM Networks, 1993, pp. 45-53.
Carpenter et al., "Art 2: Self-Organization of Stable Category Recognition Codes for Analog Input Patterns," Applied Optics, vol. 26, No. 23, pp. 4919-4930, Dec. 1,

1987.
Carpenter et al., "ARTMAP: Supervised Real-Time Learning and Classification of Nonstationary Data by a Self-Organizing Neural Network," Neural Networks, vol. 4, pp. 565-588, 1991.
Huang et al., "Machine Fault Classification Using an ART 2 Neural Network,"Nov. 1991, Accepted for International Journal of Advance Manufacturing Technology, May 1992.
Huang et al., "Artmap Neural Networks for Closed-Loop Welding Process Control," to appear in Artificial Intelligence in Optimal Design and Manufacturing, edited by Z. Dong, Oct. 1992.
Spoerre, Julie K., "Machine Performance Monitoring and Fault Classification Using an Exponentially Weighted Moving Average Scheme,"Thesis, May 1993.

ART-UNIT: 244

PRIMARY-EXAMINER: Voeltz; Emanuel T.

ASSISTANT-EXAMINER: Wachsman; Hal P.

ATTY-AGENT-FIRM: Sokohl; Robert

ABSTRACT:

The invention provides a machine fault diagnostic system to help ensure effective equipment maintenance. The major technique used for fault diagnostics is a fault diagnostic network (FDN) which is based on a modified ARTMAP neural network architecture. A hypothesis and test procedure based on fuzzy logic and physical bearing models is disclosed to operate with the FDN for detecting faults that cannot be recognized by the FDN and for analyzing complex machine conditions. The procedure described herein is able to provide accurate fault diagnosis for both one and multiple-fault conditions. Furthermore, a transputer-based parallel processing technique is used in which the FDN is implemented on a network of four T800-25 transputers.

25 Claims, 28 Drawing figures

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Search Results - Record(s) 1 through 6 of 6 returned.

☐ 1. Document ID: US 20030158587 A1

Using default format because multiple data bases are involved.

L6: Entry 1 of 6 File: PGPB Aug 21, 2003

PGPUB-DOCUMENT-NUMBER: 20030158587
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030158587 A1

TITLE: Adaptive method and apparatus for forecasting and controlling neurological disturbances under a multi-level control

PUBLICATION-DATE: August 21, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Esteller, Rosana	Marietta	GA	US
Echauz, Javier Ramon	Atlanta	GA	US
Litt, Brian	Merion Station	PA	US
Vachtsevanos, George John	Marietta	GA	US

US-CL-CURRENT: 607/45

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 2. Document ID: US 20020103512 A1

L6: Entry 2 of 6 File: PGPB Aug 1, 2002

PGPUB-DOCUMENT-NUMBER: 20020103512
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020103512 A1

TITLE: Adaptive method and apparatus for forecasting and controlling neurological disturbances under a multi-level control

PUBLICATION-DATE: August 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Echauz, Javier Ramon	Atlanta	GA	US
Litt, Brian	Merion Station	PA	US
Esteller, Rosana	Marietta	GA	US
Vachtsevanos, George John	Marietta	GA	US

US-CL-CURRENT: 607/9

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 3. Document ID: US 6594524 B2

L6: Entry 3 of 6 File: USPT Jul 15, 2003

US-PAT-NO: 6594524
DOCUMENT-IDENTIFIER: US 6594524 B2

TITLE: Adaptive method and apparatus for forecasting and controlling neurological disturbances under a multi-level control

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 4. Document ID: US 6546785 B1

L6: Entry 4 of 6 File: USPT Apr 15, 2003

US-PAT-NO: 6546785
DOCUMENT-IDENTIFIER: US 6546785 B1

TITLE: System and method for dynamic lubrication adjustment for a lubrication analysis system

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 5. Document ID: US 5566092 A

L6: Entry 5 of 6 File: USPT Oct 15, 1996

US-PAT-NO: 5566092
DOCUMENT-IDENTIFIER: US 5566092 A

TITLE: Machine fault diagnostics system and method

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 6. Document ID: US 4251688 A

L6: Entry 6 of 6 File: USPT Feb 17, 1981

US-PAT-NO: 4251688
DOCUMENT-IDENTIFIER: US 4251688 A

TITLE: Audio-digital processing system for demultiplexing stereophonic/quadriphonic input audio signals into 4-to-72 output audio signals

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

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Terms	Documents
L5 and (diagnos$ with fault$)	6

Display Format: - Change Format

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L3: Entry 1 of 1 File: PGPB Jul 7, 2005

PGPUB-DOCUMENT-NUMBER: 20050149238
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050149238 A1

TITLE: System and method for monitoring and reporting aircraft quick access recorder data

PUBLICATION-DATE: July 7, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Stefani, Rolf	West River	MD	US
Scherbina, Alexander	Annapolis	MD	US

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	COUNTRY	TYPE CODE
ARINC INC.	Annapolis	MD	US	02

APPL-NO: 10/750868 [PALM]
DATE FILED: January 5, 2004

INT-CL-PUBLISHED: [07] G06 F 19/00

US-CL-PUBLISHED: 701/033; 701/029, 701/035
US-CL-CURRENT: 701/33; 701/29, 701/35

REPRESENTATIVE-FIGURES: 1

ABSTRACT:

Systems and methods for monitoring and reporting a quick access recorder (QAR) data in real time. The system includes a QAR for recording fault information, a removable portable hardware component that stores, analyzes and displays the fault information, an onboard data communication network that enables the QAR and the portable hardware component to exchange information, and an air-ground data transmitting device for transmitting the fault information from the vehicle. The removable portable hardware component may be an Electronic Flight Bag (EFB) that hosts a QAR Manager application and communication technologies to manage and report all applications on the EFB.

L2: Entry 1 of 2 File: JPAB Sep 25, 2001

PUB-NO: JP02001259105A
DOCUMENT-IDENTIFIER: JP 2001259105 A
TITLE: ORIENTEERING TYPE COMMUNICATION STYLE GAME SYSTEM

PUBN-DATE: September 25, 2001

INVENTOR-INFORMATION:

NAME	COUNTRY
TSUJI, SHINTARO	

ASSIGNEE-INFORMATION:

NAME	COUNTRY
SANRIO CO LTD	

APPL-NO: JP2000079003
APPL-DATE: March 21, 2000

INT-CL (IPC): A63 B 71/06

ABSTRACT:

PROBLEM TO BE SOLVED: To provide an orienteering type communication style game system that can amuse a large number of participants without limitations on the time and area and is practicable at small cost.

SOLUTION: This orienteering type communication style game system employs mobile communication terminals 1 with an Internet connection function, a host device 4 for receiving access from the mobile communication terminals and sending indication thereto, and a plurality of checkpoints located in a game zone at intervals and provided with announcing means 6a to 6k for displaying different command addresses in the host device. With the aid of the indication, including the next questions and orienteering clues, that the host device sends to the mobile communication terminals, the participants carrying the mobile communication terminals repeat more than one process of finding their way to the next checkpoint, until the host device represents or implies the final answer.

Aircraft condition analysis and management system

Patent number: EP1455313
Publication date: 2004-09-08
Inventor: KENT RENEE (US); MARTOLINI ANTONY (US); MUNNS TOM (US); SHEPPARD JOHN (US)
Applicant: ARINC INC (US)
Classification:
- international: ***G05B23/02; G07C5/00; G07C5/08;*** **G05B23/02; G07C5/00;** (IPC1-7): G07C5/00
- european: G05B23/02; G07C5/00T; G07C5/08D
Application number: EP20040251264 20040304
Priority number(s): US20030377881 20030304

Also published as:
US2004176887 (A

Cited documents:
US5400018
US2003216889
WO0218879
XP002284367
XP010548433
XP010515995
XP010548420
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Abstract of **EP1455313**

The invention provides a health management system and method for a complex system having at least one information source with data sources, an Aircraft Condition Analysis and Management system (ACAMS) for monitoring the data sources, an information controller for collecting and processing the data sources and a diagnostic/prognostic reasoner for fusing the collected data sources to establish current and future states and conditions of the complex system.

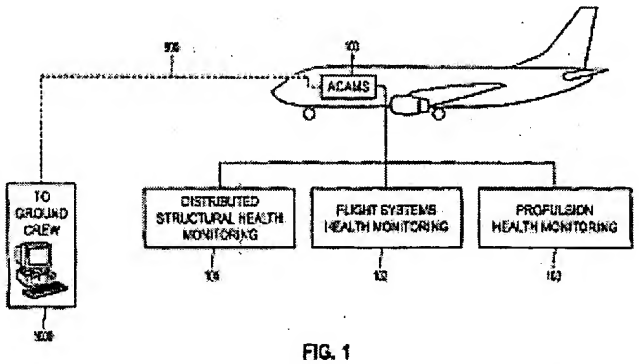

FIG. 1

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L27: Entry 1 of 1 File: USPT Aug 13, 2002

US-PAT-NO: 6434512
DOCUMENT-IDENTIFIER: US 6434512 B1

TITLE: Modular data collection and analysis system

DATE-ISSUED: August 13, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Discenzo; Frederick M.	Brecksville	OH		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Reliance Electric Technologies, LLC	Mayfield Heights	OH			02

APPL-NO: 09/410253 [PALM]
DATE FILED: September 30, 1999

PARENT-CASE:
CROSS REFERENCE TO A RELATED APPLICATION This application is a continuation-in-part of U.S. patent application Ser. No. 09/118,287, filed Jul. 17, 1998, pending; U.S. patent application Ser. No. 09/300,645, filed Apr. 27, 1999, pending, which is a continuation-in-part of U.S. patent application Ser. No. 09/054,117, filed Apr. 2, 1998, pending; U.S. patent application Ser. No. 09/257,680, filed Feb. 25, 1999, pending, which is also a continuation-in-part of U.S. patent application Ser. No. 09/054,117, filed Apr. 2, 1998, pending; and U.S. patent application Ser. No. 09/257,785, filed Feb. 22, 1999.

INT-CL-ISSUED: [07] G06 F 11/26

US-CL-ISSUED: 702/184; 714/798
US-CL-CURRENT: 702/184; 714/798

FIELD-OF-CLASSIFICATION-SEARCH: 702/183, 702/184, 702/185, 702/187, 702/188, 702/182, 714/100, 714/1, 714/25, 714/31, 714/37, 714/47, 714/48, 714/798, 700/3, 700/9, 700/19-21, 700/108, 700/109, 700/204, 700/258, 701/2, 701/24, 701/33, 701/29, 701/30
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	5337013	August 1994	Langer et al.	324/537
☐	5400018	March 1995	Scholl et al.	340/825.54
☐	5481906	January 1996	Nagayoshi et al.	73/116
☐	5566091	October 1996	Schricker et al.	702/34
☐	5592386	January 1997	Gaultier	701/99
☐	5648898	July 1997	Moore-McKee et al.	700/86
☐	5661666	August 1997	Pawlak	702/182
☐	5754965	May 1998	Hagenbuch	701/35
☐	5925817	July 1999	Kidokoro et al.	73/40
☐	5929609	July 1999	Joy et al.	322/25
☐	6006146	December 1999	Usui et al.	701/29
☐	6128560	October 2000	Ishii	701/29
☐	6144903	October 2000	Tousignant	701/29
☐	6157894	December 2000	Hell et al.	702/54
☐	6208948	March 2001	Klinger et al.	702/183
☐	6230089	May 2001	Lonn et al.	701/48
☐	6297742	October 2001	Canada et al.	340/635
☐	6301514	October 2001	Canada et al.	700/108

ART-UNIT: 2853

PRIMARY-EXAMINER: Hoff; Marc S.

ASSISTANT-EXAMINER: Raymond; Edward

ATTY-AGENT-FIRM: Amin; Himanshu S. Walbrun; William R. Gerasimow; Alexander M.

ABSTRACT:

A diagnostics/prognostics system and related method for collecting and processing data relating to a plurality of subsystems of a dynamic system includes a plurality of sensors, each sensor gathering data and generating a data signal indicative of the health of a corresponding one of the subsystems. In addition, the diagnostics/prognostics system includes a plurality of subsystem modules coupled to corresponding ones of the sensors for generating a subsystem health signal in response to corresponding ones of the data signals. Further, a master diagnostics module is coupled to the subsystems to generate an overall system health signal in response to the subsystem health signals. Preferably, the master diagnostics module includes a memory having an embedded model to facilitate generating the overall system health signal and a related trend analysis. Preferably, a controller is used to generate a control signal in response to at least one of a group consisting of the subsystem health signals and the vehicle health signal, the control signal causing an operation parameter of at least one of the subsystems to change. The

diagnostics/prognostics system is especially well suited for vehicles, but can also be applied to other dynamic systems.

44 Claims, 30 Drawing figures

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Aircraft condition analysis and management system

Legal status (INPADOC) of **EP1455313**

EP F	**04251264 A**	(Patent of invention)
PRS Date :	2004/09/08	
PRS Code :	AK	
Code Expl.:	+ DESIGNATED CONTRACTING STATES:	
KD OF CORRESP. PAT.:	A1	
DESIGNATED COUNTR.:	AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR	

PRS Date :	2004/09/08
PRS Code :	AX
Code Expl.:	+ EXTENSION OF THE EUROPEAN PATENT TO
CONCERNED COUNTRIES:	AL HR LT LV MK

PRS Date :	2005/05/25
PRS Code :	AKX
Code Expl.:	+ PAYMENT OF DESIGNATION FEES

PRS Date :	2005/06/30
PRS Code :	REG DE 8566
Code Expl.:	- DESIGNATED COUNTRY DE NOT LONGER VALID

PRS Date :	2006/01/04

PRS Code :	18D
Code Expl.:	- DEEMED TO BE WITHDRAWN
EFFECTIVE DATE:	20050309

On-Board Traverse Science Data Analysis

NASA Jet Propulsion Laboratory

Becky Castano (JPL/MLS)

Abstract

The Mars Science Laboratory (MSL) rover may spend as much as 43% of its mission time moving between science/exploration sites. This research task will develop science data collection, analysis, and prioritization capabilities for this traverse time. In particular, the rover will be able to recognize pre-specified "science alert" spectral signatures, detect novel spectral or image features that are worth logging and storing for their possible scientific interest, and construct a summary catalog of what it has

seen during its traverse. Autonomous reactions to identified science opportunities could include taking an extra image or sensor measurement, changing the rover path to take a contact measurement, or stopping to call back to Earth. For routine observations, the system will use onboard reasoning to summarize and prioritize data for downlink. The techniques will be applicable to other in-situ and orbital missions as well.

Task Description

Objective:

Space probes, orbiters, and Mars rovers lose a lot of science observation time if they have to call back to Earth for instructions. This research subtask is developing on-board data analysis capability so that a science platform can choose what path to follow and what measurements to take in order to maximize its mission success. Capabilities to be developed and integrated include efficient data analysis (e.g., image segmentation, rock characterization); mapping of features to science data priorities; and planning and scheduling to support opportunistic science collection during a rover traverse.

Applications:

Mission science maximization from rovers, probes, etc., with high data-collection capability and limited downlink

communication.

NASA Benefit:

On-board science data analysis can be used to increase the science return on any orbital or in situ exploration mission with fixed downlink bandwidths. This subtask research has direct mission relevance to the Mars Science Laboratory (MSL) and Astrobiology Field Laboratory (AFL) missions, and ground data analysis of Mars Exploration Rovers (MER) data.

Keywords:

rover on-board data analysis, observation prioritization, intelligent traverse, science alerts

Research Plan

Prior Technology:

Pathfinder/Sojourner activities were commanded from Earth, with three sols needed for an approach and contact measurement.

FY04 Milestone:

Science alert demo: stop and call home. Path adjustment to take additional measurements.

Progress

FY04 Quadchart Slide:

AR_DIR_Castano_OnbdAnal.ppt.

Accomplishments:

Grayscale rockfinder; sky detector; interactive rock identification tool (RockIT) for MER; FIDO science alert test; image prioritization.

For More Information

Parent Task:

Intelligent Decision-Making for Autonomous Rover Operations.

Contacts:

Rebecca Castano (PI), JPL Machine Learning Systems Group.

Intelligent Systems | Automated Reasoning | Planning and Execution

AR: Previous | Next

Responsible NASA Official: Joseph C. Coughlan.
Program Support: Kenneth I. Laws. / Updated: 29-Nov-2004
Mail Stop 269-3, NASA Ames Research Center, Moffett Field, CA 94035-1000

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